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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 081468-0307112
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<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>		
<p>I am the</p> <p><input type="checkbox"/> applicant/inventor. <input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</p> <p><input checked="" type="checkbox"/> attorney or agent of record. Registration number <u>47,418</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</p>		 <p>Signature Emily T. Bell</p> <p>Typed or printed name 703.770.7661</p> <p>Telephone number April 12, 2006</p> <p>Date</p>
<p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>		
<p><input checked="" type="checkbox"/> *Total of _____ forms are submitted.</p>		

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Attorney Docket: 081468-0307112
Client Reference: P-0415.010-US



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of:
BAKKER

Confirmation Number: 4454

Application No.: 10/743,270

Group Art Unit: 2851

Filed: December 23, 2003

Examiner: Hung Henry Nguyen

Title: LITHOGRAPHIC APPARATUS WITH DEBRIS SUPPRESSION, AND DEVICE MANUFACTURING METHOD

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Claims 1-7, 9-22, 24, and 26-29 stand rejected under 35 U.S.C. §102(b) as being anticipated by Silfvast et al. (U.S. Patent No. 6,232,613).

Applicants respectfully submit that Silfvast et al. does not disclose or suggest each and every limitation of claims 1-7, 9-22, 24, and 26-29. To anticipate a claim, the reference must teach each and every element of the claim. *See MPEP §2131*. MPEP §2131 also advises that “[t]he identical invention must be shown in as complete detail as is contained in the ...claim,” *see MPEP §2131, quoting Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), and that “[t]he elements must be arranged as required by the claim.” *See MPEP §2131*.

Claims 1-7, 9-18, and 28

Independent claim 1 recites a lithographic projection apparatus that includes a plurality of features. Silfvast et al. does not even disclose a lithographic projection apparatus, let alone one with all of the features recited by claim 1. Although the Examiner concedes that “Silfvast et al. does not specifically disclose the claimed radiation source, a support structure for supporting a patterning structure, a substrate support for supporting a substrate, and a projection system for projecting the patterned beam onto the substrate,” the Examiner fills in this huge gap by relying on the theory of inherency. *See* the Office Action dated October 13, 2006 at page 2. As discussed in the remarks filed with the Amendment dated July 11, 2005, this is an improper application of the doctrine of inherency. The fact that Silfvast et al. discloses that the discharge source disclosed therein *may* be used in a *variety* of applications, including EUV lithography, *see* Silfvast et al. at col. 3, lns. 1-4, it does not follow that a

lithographic projection apparatus with all of the features of claim 1 is necessarily present in the disclosure of Silfvast et al. See MPEP § 2112 (“In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461,1464 (Bd. Pat. App. & Inter. 1990)(emphasis in original).)

The Examiner merely asserts that “one having ordinary skill in the art would know that a lithography system must have at least a radiation system, a support structure for supporting a patterning device (mask or reticle), and a projection system for projecting the pattern formed by the patterning device onto a substrate.” See the Office Action dated October 13, 2006 at page 5. As Silfvast et al. discloses nothing about a lithographic projection apparatus, other than the use of an APEC discharge source in EUV *lithography*, it is respectfully submitted that Silfvast et al. cannot necessarily include the features of claims 1-7, 9-18, and 28, as asserted by the Examiner.

In addition, it is clear that the all of the electrodes disclosed by Silfvast et al. are part of the discharge source that generates EUV radiation. In contrast, independent claim 1 recites a lithographic projection apparatus that includes, *inter alia*, a voltage source that applies an electric field between the radiation source and the electrode to generate a discharge between the radiation source and the electrode. This feature is clearly not taught by Silfvast et al.

Claims 19 and 20

As discussed above, it is clear that the all of the electrodes disclosed by Silfvast et al. are part of the discharge source that generates EUV radiation. In contrast, independent claim 19 recites a radiation system that includes, a radiation source, an electrode, and a voltage source, wherein the voltage source applies an electric field between the radiation source and the electrode, and generates a discharge between the radiation source and the electrode to capture contaminant particles from the radiation source. Silfvast et al. clearly does not teach all of the features of claims 19 and 20.

Claims 21, 22, 24, 26, and 29

Independent claim 21 recites a device manufacturing method using a lithography apparatus. The method includes, *inter alia*, providing an electrode positioned downstream, relative to a direction of propagation of the beam of radiation, of the radiation source, and applying an electric field between the radiation source and the electrode to generate a discharge between the radiation source and the electrode. Because the electrodes of Silfvast

et al. are within the discharge source and are all used to create the radiation, they cannot be positioned downstream relative to a direction of propagation of the beam of radiation, as claimed. The figures of Silfvast et al. clearly illustrate this.

Claim 27

Independent claim 27 recites a method for debris suppression of an ionizing radiation system that includes providing a radiation source; providing an electrode; and applying an electric field between the radiation source and the electrode to generate a discharge between the radiation source and the electrode. As discussed above, the electrodes of Silfvast et al. are part of the radiation source and are used to generate the discharge of radiation within the source.

Conclusion

Because Silfvast et al. does not disclose all of the features of the rejected claims, Applicants respectfully submit that the rejection to claims 1-7, 9-22, 24, and 26-29 under 35 U.S.C. §102(b) as being anticipated by Silfvast et al. is improper, and respectfully request that rejection to claims 1-7, 9-22, 24, and 26-29 be withdrawn.

Respectfully submitted,

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